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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,892	01/24/2006	William David Lewis	024774556	7925
24978 7590 03/17/2009 GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606				
EXAMINER O HERN, BRENT T				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
03/17/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,892

Applicant(s)

LEWIS ET AL.

Examiner

Brent T. O'Hern

Art Unit

1794

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-57, 62 and 64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 41-57, 62 and 64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims

1. Claims 41-57, 62 and 64 are pending.

WITHDRAWN OBJECTIONS/REJECTIONS

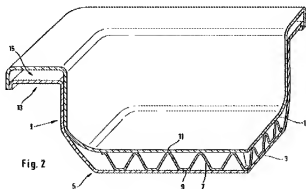
2. All objections/rejections of record have been withdrawn due to Applicant's amendments in the Paper filed 27 February 2009.

NEW REJECTIONS

Claim Rejections - 35 USC § 102

3. Claims 41, 48, 50-51, 55, 62 and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 107 46 944 A1 (Huber). See translation.

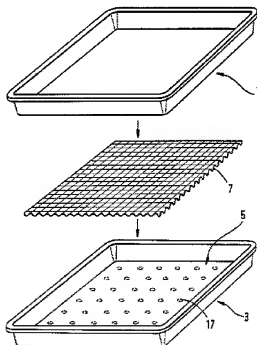
Regarding claims 41 and 48, Huber ('944) teaches a composite article comprising a shower tray having an upper surface and an underside (*See p.2, para. 1 and FIG-2, entire FIG.*),



the shower tray comprising an upper member providing the upper surface of the shower tray (*See p.2, para. 1 and FIG-2, #1 with an upper surface.*) and a lower member on the underside of the shower tray that together form an outer shell (*See FIG-2, lower member #3.*), the upper member being spaced from the lower member to define a cavity

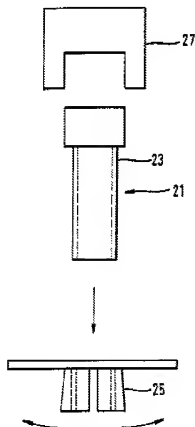
therebetween (*See FIG-2, cavity between #1 and #3.*), and an inner core of filler extending throughout the cavity between the upper member and the lower member to provide strength and rigidity to the shower tray (*See FIG-2, filler #7.*), the upper and lower members being formed from plastics/(acrylonitrile butadiene styrene) sheet material (*See p. 3, ll. 1-3 and claim #2, plastic acrylonitrile butadiene styrene (ABS).*) and the inner core being sandwiched between the upper member and the lower member to support the upper surface of the shower tray so that it does not flex when stood on (*See FIG-2, where core #7 is sandwiched between #1 and #3.*), and wherein the lower member is provided with a means for releasing air from the cavity on the underside of the shower tray (*See p. 1, para. 2 and FIG-1 where recesses #17 provide a means for releasing air.*).

Fig. 1



Regarding claim 50, Huber ('944) teaches wherein sockets are provided in an underside of the lower member for receiving legs for raising the article above a surface on which it is installed (*See p. 1, para. 2, p. 2, paras. 5-7 and FIG-1, sockets #17 for receiving legs such as those in FIG-4.*).

Fig. 4



Regarding claim 51, Huber ('944) teaches wherein the legs are push-fit into the sockets (*See FIG-4, where #25 is pushed into socket #17 as illustrated in FIG-1.*).

Regarding claim 55, Huber ('944) teaches wherein the means for releasing air comprises holes in the lower member (*See FIG-1, holes #17.*).

Regarding claim 62, Huber ('944) teaches a shower tray having an upper surface and an underside (*See p. 2, para. 1 and FIG-2, entire FIG.*), the shower tray comprising an upper member forming the upper surface of the shower tray (*See FIG-2, #1.*), a lower member forming the underside of the shower tray (*See FIG-2, lower member #3.*), and a core of filler (*See FIG-2, filler #7.*), the upper and lower members being formed from plastics sheet material (*See p. 3, ll. 1-3 and claim #2, plastic ABS.*), the shower tray having a floor and inner walls upstanding from the floor to define a well in the upper surface of the shower tray (*See FIG-2, where a well is formed in the upper surface.*), wherein the core of filler is sandwiched between the upper and lower members (*See FIG-2, where core #7 is sandwiched between #1 and #3.*), whereby the core of filler extends below the floor between the upper surface and the underside of the shower tray and provides strength and rigidity to the shower tray (*See FIG-2, where #7 is below #1 and provides strength and rigidity.*), and wherein the lower member is provided with holes on the underside of the shower tray (*See FIG-1 where holes #17 are on the underside.*).

Regarding claim 64, Huber ('944) teaches a shower tray having an upper surface and an underside (*See p. 2, para. 1 and FIG-2, entire FIG.*), the shower tray comprising a floor and inner walls defining a well in the upper surface (*See FIG-2, well between the upper surfaces.*), an outer side wall at an outer peripheral edge of the upper surface (*See FIG-2, outer walls at the edges.*), and an upper wall extending between the well and the outer side wall (*See FIG-2, entire FIG.*), the shower tray further comprising an upper member formed from plastics sheet material (*See FIG-2, p. 3, ll. 1-3 and claim #2, ABS.*), a lower member formed from plastics sheet material (*See FIG-2, p. 3, ll. 1-3 and claim*

#2, ABS.), and a core of filler sandwiched between the upper and lower members (See FIG-2, where #7 is sandwiched between #1 and #3.), the upper and lower members being attached to the core on opposed sides thereof such that the upper member forms the upper surface and an outer surface of the outer side wall, of the shower tray (See FIG-2, entire FIG.) and the core extends throughout a cavity defined between the upper and lower members in the region of the outer side wall (See FIG-2, core #7.), upper wall and well such that the core provides strength and rigidity to the shower tray (See FIG-2, where #7 provides rigidity.), and the lower member being provided on an underside of the shower tray with means for releasing air from the cavity (See FIG-1 where recesses #17 provide a means for releasing air.).

Claim Rejections - 35 USC § 102/103

4. Claim 54 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over DE 107 46 944 A1 (Huber).

Huber ('944) inherently teaches wherein the upper and lower members further comprise means for providing a waste hole in the floor of the well (See p. 2, para. 7 where the shower tray has legs to allow for pipes to run below the shower tray. A person skilled in the art knows that the drains from shower trays are typically pipes below the tray. Furthermore, shower trays are known to support a person taking showers for significant periods of time with the dirty water draining from the lowest point of the shower tray. Thus, in order for Huber's ('944) shower tray to function as intended it must be provided with a waste hole in the well to allow for the dirty water to drain away.).

In the alternative, a person having ordinary skill in the art would obviously appreciate or provide the shower tray with a drain hole to allow the tray to function as intended. Thus, a rejection under 35 USC 102/103 is proper (*See MPEP 2112.*).

Claim Rejections - 35 USC § 103

5. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 107 46 944 A1 (Huber) in view of Thiele et al. (US 2004/0126557).

Huber ('944) teaches the article discussed above, however, fails to expressly disclose the filler being a composite resin-stone mix.

However, Thiele ('557) teaches forming shower trays with a resin-stone matrix (*See paras. 13, 3 and 10 with the foamable resin containing polyisocyanate and abraded stone, sand and other fillers.*) for the purpose of providing a shapeable shower tray that has adequate load-bearing capacity (*See para. 3.*). Furthermore, said materials are typical inexpensive core materials for showers.

Therefore, it would have been obvious to a person having ordinary skill in the art to incorporate the above resin-stone materials as taught by Thiele ('557) in Huber ('944) in order to provide a shapeable inexpensive shower tray that has adequate load-bearing capacity.

6. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 107 46 944 A1 (Huber) in view of Thiele et al. (US 2004/0126557) and Swanson (US 4,414,385).

Huber ('944) and Thiele ('557) teach the composite discussed above and Thiele ('557) teaches combining a resin-stone mix comprising a mixture of limestone, calcium

carbonate for a shower tray (*See paras. 13 and 3.*), however, fail to expressly disclose using a catalyst and the resin being dicyclopentadiene.

However, Swanson ('385) discloses incorporating dicyclopentadiene resin together with the above materials (*See col. 1, ll. 51-58.*) for the purpose of providing a material with superior resistance to chemical attack (*See col. 1, ll. 49-50.*). Furthermore, installing showers are typically large and costly projects and once installed these structures usually need to last for many years, thus, there is a clear desire that the materials do not chemically degrade quickly. Furthermore, catalysts are known to be used with resins in chemical reactions to either speed up or slow down the curing time so as to provide a product that cures at the desired time. It would have been obvious to provide a composition that cures in a reasonable amount of time, but not too quickly, so the technicians handling the materials do not have to wait long times to continue their work.

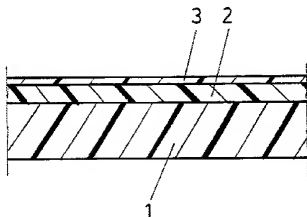
Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to provide an article with a dicyclopentadiene resin as taught by Swanson ('385) with a catalyst in Huber ('944) in order to provide a material that can effectively be prepared with superior resistance to chemical attack. Furthermore, Applicant has not disclosed the criticality of using the DCPD resin over other resins.

7. Claims 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 107 46 944 A1 (Huber) in view of Klepsch (US 2003/0008164).

Regarding claims 44-47, Huber ('944) teaches the composite discussed above, however, fails to expressly disclose wherein the upper member has an outer layer of

hardwearing, scratch resistant material for absorbing impacts occurring during use of the article and wherein the outer layer of said upper member is an acrylic layer and said layer underneath said outer layer is an acrylonitrile butadiene styrene (ABS) layer with the ratio of the ABS to the acrylic layer is 9:1.

However, Klepsch ('164) teaches a shower tray wherein the upper member has an outer layer of hardwearing, scratch resistant material for absorbing impacts occurring during use of the article and wherein the outer layer of the upper member is an acrylic layer and the layer underneath the outer layer is an acrylonitrile butadiene styrene layer with the ratio of the ABS to the acrylic layer being 9:1 (*See FIG and paras. 1 and 16 where the hardwearing, scratch resistant acrylic layer # 3 is between 1 and 30% and the first ABS layer is 10-20% of the total thickness while the second ABS layer #1 is the balance, thus, clearly providing the above 9:1 ratio.*) for the purpose of providing a moldable shower tray that is resistant to chemicals and hot and cold water (*See paras. 6 and 3.*).



Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to provide Huber's ('944) shower tray with the

above acrylic layer having the above relative thickness as taught by Klepsch ('164) in order to provide a moldable shower tray that is resistant to chemicals and hot and cold water.

8. Claims 49, 52-53 and 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 107 46 944 A1 (Huber).

Regarding claim 49, Huber ('944) teaches the composite discussed above, however, fails to expressly disclose wherein said inner core has a variable thickness.

However, it is known that in order for the shower tray to function as intended the water that falls to the well of the shower tray needs to drain from the shower tray and not remain in the shower tray. Thus, in order for the water to drain, the base needs to be sloped to the drain, thus, some portions of the shower tray need to be thinner than other portions. Thus, in order for the tray to be thinner in some portions it would have been obvious to make portions of the core thinner otherwise if the core is not made thinner then the bottom surface would have to be sloped downward requiring the base of the shower to be unnecessarily higher than required and using extra costly materials.

Therefore, it would have been obvious to provide the tray with the above profile in order to allow water to drain and a short tray with minimal material and cost. Furthermore, one could interpret the troughs of Huber's ('944) core as illustrated in FIG-2 as being thinner than the peaks.

Regarding claims 52-53, Huber ('944) teaches the composite discussed above, however, fails to expressly disclose further comprising a means for locating said members relative to one another, said locating means being removable to provide a

perimeter of said shower tray with a flat surface on an underside, wherein said locating means comprises co-operating formations on said upper and lower members.

However, Huber ('944) teaches as illustrated in Fig-2 that the upper layer #1 and the lower layer #3 do have a means of locating the members in the form of the co-operating outer surface formations of both the upper and lower layers/members. Since the upper layer is slightly smaller than the lower layer it must be inserted into the lower member and not the other way around. The removable core member #7 also provides a means for positioning the layers. Any excess material from the lips or all of the lips can easily be removed by cutting with a saw as required by the room and or the project requirements. Thus, both the top and core members both provide a means for positioning the members and are removable. Furthermore, if the members fit tightly then it would have been obvious to provide a flat screwdriver or some other means to aid in the joining of the members. This type of tool would obviously be removable once the structures are joined.

Regarding claim 56, Huber ('944) teaches the composite discussed above, however, fails to expressly disclose wherein said lower member further comprises a means for assisting distribution of said filler between said members during moulding of said core.

However, it is noted that the bottom member has sides and a bottom with the surfaces aiding in distribution through confinement of the filler to the bottom of the structure (See FIG-2.). Furthermore, since the surfaces are solid the filler will not move beyond the structure even when the top member is inserted. When the top member is

inserted the distribution will be assisted and confined by the bottom member.

Furthermore, if the means for assisting the distribution as taught by Huber ('944) are not sufficient then it would have been obvious to provide additional means since in order for the structure to function as intended the core material needs to be substantially evenly distributed and not having significant regions without core material.

Regarding claim 57, Huber ('944) teaches wherein the lower member is provided with an array of interlinked recessed regions (*See FIG-1 where the recesses are linked to each other by the polymeric material between the recesses.*).

ANSWERS TO APPLICANT'S ARGUMENTS

9. In response to Applicant's arguments (*pp. 11-15 of Applicant's Paper filed 27 February 2009*) regarding Altman ('071), it is noted that said reference is no longer cited, thus, said arguments are moot.

10. In response to Applicant's arguments (*p. 14, para. 4 of Applicant's Paper filed 27 February 2009*) that there is no reason for Applicant's core to be resistant to chemicals because it is enclosed, it is noted as discussed above that installing showers are typically large and costly projects and once installed these structures usually need to last for many years, thus, there is a clear desire that the materials do not degrade quickly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T. O'Hern/
Examiner
Art Unit 1794
March 14, 2009